

M67001.AR.005533
MCB CAMP LEJEUNE
5090.3a

LETTER AND RESPONSE TO REGULATOR COMMENTS TO DRAFT PROPOSED
REMEDIAL ACTION PLAN SITE 49 OPERABLE UNIT 23 (OU23) MCB CAMP LEJEUNE NC
2/7/2013
CH2M HILL

Response to Comments
Draft Proposed Remedial Action Plan
Operable Unit 23, Site 49
Marine Corps Installations East – Marine Corps Base Camp Lejeune
(MCIEAST-MCB CAMLEJ), North Carolina

PREPARED FOR: Dave Cleland, NAVFAC Mid-Atlantic
Charity Rychak, MCIEAST-MCB CAMLEJ
Patti Vanture, MCIEAST-MCB CAMLEJ
Gena Townsend, EPA Region 4
Randy McElveen, NCDENR

PREPARED BY: CH2M HILL

DATE: February 7, 2013

Introduction

The purpose of this document is to address comments on the Draft Preliminary Remedial Action Plan (PRAP) for Site 49, Operable Unit (OU) No. 23. The United States Environmental Protection Agency (USEPA) and North Carolina Department of Environment and Natural Resources (NCDENR) provided the comments listed below. The responses to comments are provided in bolded text.

North Carolina Department of Environment and Natural Resources

Comments (dated January 28, 2013)

1. The second and third paragraphs of the RI/FS Activities and Findings listing in Table 1 have grammatical typographical errors. Please make the appropriate corrections.

Table 1 was reviewed for grammatical and typographical errors and revised as needed.

2. Please clarify on Table 2 that the maximum concentrations of Contaminants of Concern (COCs) listed in Table 2 are all from MW-01. If not, the well locations of the maximum concentrations should be included in Table 2.

The maximum COC concentrations were detected in groundwater collected from temporary well TW01 installed during the 2009 PA/SI in the vicinity of IR49-MW01. Although the maximum detections in TW01 were not reproduced in groundwater collected from the adjacent monitoring well MW01, similar detections of chlorinated VOCs were observed. A note was added to the table to state “The maximum concentrations were detected in the vicinity of monitoring well IR49-MW01 during the PA/SI.”

3. The third paragraph on the right side of page 10 states that the Navy expects the preferred alternative to satisfy item number 5, “preference for treatment as a principle element”. As you know the number 5 CERCLA requirement is not met by Monitored Natural Attenuation (MNA) with Land Use Controls (LUCs). Please remove this CERCLA requirement from the list.

The text was updated to reflect that although the Preferred Alternative does not satisfy the statutory preference for treatment as a principal element, no source materials constituting principal threats are present, trends over time indicate that natural attenuation of groundwater will be effective and degrade VOCs in a reasonable timeframe, and the groundwater is not used for drinking water and LUCs will prevent exposure until concentrations allow for unlimited use and unrestricted exposure.

4. Section 10 on page 11 discusses the Administrative Record (AR) for Site 49. Based on my search results, all supporting documents for the PRAP (e.g. RI/FS) are not included in the Administrative Record files. This document(s) need to be downloaded to the AR prior to the public meeting in February.

The RI/FS has been uploaded to the Administrative Record and the Technical Memorandum will be uploaded once NCDENR comments are received and addressed and the Technical Memorandum is finalized.

United States Environmental Protection Agency

Comments (dated January 29, 2013)

1. Table 1 - Spelling 'from'.

Table 1 was reviewed for grammatical and typographical errors and revised as needed.

2. Section 3.1 - Specify if surface and/or subsurface soils are contaminated with VOCs above UU/UE.

A paragraph was added in Section 3.1 to indicate that no concentrations of VOCs were detected in surface soil or subsurface soil that exceeded levels that allow for unlimited use and unrestricted exposure (UU/UE).

3. Section 3.2 - Add more info for supporting the NA process, such as: "However the data suggest; 1.) VOCs data collected over a 17 month period ~59% reduction in molar concentration of total VOCs 1.7 µm/L to 0.71 µm/L 2.) VOCs degrading steadily over time ~40% reduction of TCE, ~20% reduction of VC and cis-1,2 DCE and 3.) Concentrations of degradation products decreasing with parent compound other forms of NA at work (dilution, adsorption, dispersion). [note: info obtained from the Nov. 2012 partnering presentation]

Section 3.2 was updated to provide the suggested supporting data for NA.

4. Section 3.3 - Use of the groundwater and exposure are not basis for whether PTW exists. Revise this paragraph to state that VOC source material does not appear to be present at this site based upon VOC concentrations in GW and the fact there is not high-concentration VOCs in subsurface soil that acts as a reservoir for leaching VOCs into groundwater.

Section 3.3 was revised to clarify that there is no evidence of source material at the site.

5. Table 5 - Include more detailed description of what MNA as a remedial approach and reference EPA guidance on MNA.

A description of MNA was added to Table 5 and EPA Guidance was provided as a reference in a footnote.

6. Section 8.1 Overall Protection of Human Health and the Environment - MNA is a remedial strategy and is not considered "treatment" thus revise this sentence.

Remedial strategies was used in place of treatment in Section 8.1

7. Section 8.1 Compliance with ARARs - Consider adding sentence that the NC 2L standards for GW are considered chemical-specific ARARs. Also, that NC regulations for monitoring well construction and abandonment are Action-specific ARARs.

The text was updated to reflect the suggested chemical and action specific ARARs.

8. Section 8.1 Reduction of Toxicity, Mobility, and Volume through Treatment- Natural attenuation is not considered treatment, active or passive. Revise sentence accordingly.

The text was updated as suggested.

9. Section 8.1 Short-Term Effectiveness - Specify estimated timeframe for restoration of GW using MNA.

The timeframes for achieving the RAOs were added to the text.

10. Section 9 - What about direct exposure to subsurface soils with VOCs?

There were no unacceptable risks identified from exposure to subsurface soil; therefore, no LUCs are required.

11. Section 9 - FYR is not a remedy component but required under CERCLA when remedy leaves hazardous substances above UU/UE. Revise accordingly.

The subject statement was deleted from the text.

12. Section 9 - See Site 73 ROD. LUC Objectives should be more specific, e.g., prevent human consumption as well as any use of GW.

The LUC objectives were revised to include the following:

- **To prohibit human consumption of groundwater from the surficial aquifer underlying Site 49.**

13. Section 9 - Requirement 5 is not satisfied by this remedy. However, the text could be rewritten using the following wording as an example: "Although the selected remedy for groundwater does not provide for treatment as a principle element, reduction of groundwater contamination is expected over time due to natural processes. The selected remedy for groundwater represents the maximum extent to which permanent solutions and treatment are practicable at Site 49, because based on the low volume and concentrations of COCs present, treatment would not be cost effective.

The text was updated to reflect that although the Preferred Alternative does not satisfy the statutory preference for treatment as a principal element, no source materials constituting principal threats are present, trends over time indicate that natural attenuation of groundwater will be effective and degrade VOCs in a reasonable timeframe, and the groundwater is not used for drinking water and LUCs will prevent exposure until concentrations allow for unlimited use and unrestricted exposure.